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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,194	12/31/2003	Brian C. Reising	8R08.1-030	9176

23506 7590 10/16/2006

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EXAMINER

WERNER, JONATHAN S

ART UNIT PAPER NUMBER

3732

DATE MAILED: 10/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/750,194	<b>Applicant(s)</b> REISING, BRIAN C.	
	<b>Examiner</b> Jonathan Werner	<b>Art Unit</b> 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 8/8/06.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 28-57 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 28-57 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/10/06</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

1. This action is in response to Applicant's amendment received on 8/8/06.

### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) submitted on 8/10/06 is noted. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-13 and 28-33, 35, 37, 39, and 42-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Creekmore (US 4,812,118) in view of Chen (US 6,120,287). As to claims 1, 28-29 and 35, Creekmore discloses a device for positioning orthodontic brackets and measuring certain parameters comprising a vertical register assembly (column 8, line 45), a rotation register assembly (column 8, lines 39-44 & lines 59-66), a torque register assembly (column 7, lines 13-15 & 28-38), and a bracket holder assembly (94) that holds a bracket in a suspended position at least partially offset from the model teeth in a fixed relationship and is adjustable to orient the bracket

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in three dimensions (Figures 1-2). Creekmore fails to disclose that the register assemblies are adjustable. Chen, however, teaches a device for positioning orthodontic brackets and measuring certain parameters comprising an adjustable vertical register assembly (44), an adjustable rotation register assembly (38), and an adjustable torque register assembly (35). Therefore, it would have been obvious to one having ordinary skill in the art at the time of Applicant's invention to make the register assemblies adjustable in order to properly orient them for an accurate reading. Examiner notes that Applicant's claims directed to statements of intended use and other functional statements (i.e. making each register assembly adjustable for the purpose of engagement) do not impose any structural limitations on the claims distinguishable over the prior art, which is capable of being used as claimed, and hence such statements are given little patentable weight. As to claim 2, Creekmore shows the vertical register assembly includes two vertical register arms (164,166) and a control (162) coupled to the register. As to claim 3, the rotation register assembly includes two rotation register arms and a control (column 8, lines 66-68). As to claim 4, Chen discloses the torque register assembly includes a body (28), a scale (68), and a register head (26) that is pivotally coupled to the body and operably coupled to the scale (column 7, lines 41-43; Figure 6). Examiner again notes that Applicant's claims directed to statements of intended use are given little patentable weight. As to claim 5, the register head is biased towards vertical (Figure 6) so that it maintains engagement with the tooth (Figure 2). As to claim 6, the register head includes a plate (68) and a perpendicular member (31,37). As to claims 7 and 30, Creekmore teaches the use of spring-loading the

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assembly in order to apply a continuous force against an engagement member to permit accurate positioning (column 10, lines 19-23). As to claim 8, the device of Creekmore comprises a platform (53) for securely mounting the teeth model. As to claim 9, Figure 1 shows the device comprises a base (16) and a superstructure (36,66,96) mounted to the base. As to claim 10, the superstructure further comprises a turntable (52) that is mounted to the base and adapted for rotation in a horizontal plane (Figure 3), and wherein the platform is mounted to the turntable and adapted for adjustment in three dimensions (Figure 1). As to claims 11 and 13, the device further comprises a frame having at least two attachments that are capable of attaching the torque register assembly, the bracket holder assembly, and the model teeth orienting assembly (Figures 1-3). It should be noted that with regard to claims 11 and 13, the act of interchangeably attaching each said assembly is considered a functional limitation, and as such, is given little patentable weight as long as the reference shows the determined structural limitations imposed. As to claim 12 the device further comprises a model teeth orienting assembly (Figures 1-3) having an engagement member (Figure 4). As to claims 31 and 32, Figure 4 shows the bracket holder assembly includes a bracket receiver that further includes a control (26) for manipulating the bracket receiver to engage the bracket. As to claim 33, the bracket receiver is capable of being adapted to hold a clip since the same receiver can also hold a bracket. Examiner notes again that statements of intended use are given little patentable weight since the device of Creekmore is capable of performing as claimed. As to claim 37, Creekmore discloses determining a vertical height value for each bracket (column 3, lines 27-31). As to

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claims 39 and 51, it would have been an obvious matter of choice to one having ordinary skill in the art at the time of applicant's invention to repeat certain steps or perform a test run in order obtain more data to check for accuracy. As to claims 42-44, Creekmore discloses the step of registering an axial position, a torque position, and a rotational position of each tooth comprises moving a vertical register assembly, a torque register assembly, and a rotation register assembly, respectively, into engagement with the tooth (Creekmore, column 10, lines 43-51; Chen, Figures 1-3). As to claim 45, the bracket holder assembly is adjusted by a vertical control (135) and a horizontal control (150). As to claims 46 and 47, the teeth model is secured in a fixed position on a platform and leveled (Figures 1-3). As to claim 48, the device is capable of loading one of the brackets onto a clip and loading the clip onto a bracket holder assembly. As to claim 49, Figures 1-3 show the bracket holder assembly is oriented in three dimensions relative to the tooth so that the opening of the bracket is coordinated with adjacent bracket openings to form an arch-shaped wire pathway. As to claim 50, positioning the bracket comprises holding the bracket in a suspended position horizontally offset from the model tooth and further comprising adhering the bracket in the suspended position (Figure 3). As to claim 52, Figures 1 and 4 show the bracket can be positioned on both the lingual and buccal surface of the tooth. As to claim 53, Figure 3 and 4 show that at least two brackets can be positioned on a single tooth.

4. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Creekmore in view of Chen further in view of Cusato (US 4,001,940). Chen and

Creekmore both disclose a device for positioning orthodontic brackets as previously described, but fail to show the bracket receiver is keyed for alignment with a matingly keyed portion of the clip. Cusato, however, teaches an orthodontic apparatus that is keyed for alignment with a matingly keyed portion of a bracket clip (Figure 13).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to make the bracket receiver properly align with a mating portion of the bracket clip in order to properly secure the bracket as taught by Cusato.

Claims 36 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Creekmore in view of Chen further in view of Allesee (US 5,820,370). Chen and Creekmore disclose a device for positioning orthodontic brackets as previously described, but fail to show the step of selecting predetermined torque values from a table. Allesee, however, teaches a preadjusted orthodontic bracket system in which tables listing torque values preformed into various conventional bracket systems are referenced (Figures 4 and 8-17). Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to select predetermined torque values from a table in order to make preadjustments to optimize the bracket as taught by Allesee.

5. Claims 40-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Creekmore in view of Chen further in view of Aspel (US 3,906,634). Chen and Creekmore both disclose a device for positioning orthodontic brackets as previously

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described, but fail to show the step of determining a useable horizontal value for each bracket comprises selecting a reference point for a segment of the teeth and measuring the actual horizontal width of each tooth. Aspel, however, teaches a method of making tooth width measurements (Figures 1-7). Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to determine a horizontal width of each tooth and select a reference point for a segment of the teeth in order to properly mark an archwire with tooth widths as taught by Aspel. As to claim 41, Creekmore discloses a reference point is selected from a center of a facial surface of each tooth at a vertical height (column 12, lines 3-8).

6. Claims 54-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Creekmore in view of Chen further in view of Piekarsky (US 4,533,320). Creekmore and Chen both disclose a device for positioning orthodontic brackets as previously described, but fail to show the bracket is suspended horizontally offset from the teeth and then embedded in an adhesive mass. Piekarsky, however, teaches positioning an orthodontic bracket (36,36) suspended horizontally (Figure 10) and embedded in an adhesive mass (40), the bracket comprising a body defining a coextensive opening (i.e. 48) for receiving a wire (Figures 2 & 5), wherein the bracket is adapted to be embedded into the adhesive in a position that is offset from the tooth with the opening exposed so that the wire can be inserted therethrough (Figures 2-3),



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7. Claims 56-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Creekmore in view of Chen further in view of Michelsen (US 3,953,132). Creekmore and Chen disclose a device for positioning orthodontic brackets as previously described, but fail to show the register arms are angularly movable together.

Michelsen, however, teaches a system for registering position of an element whereby a support structure has an arm fixed angularly movable to it (column 3, lines 50-55).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of Applicant's invention to make each register arm angularly movable together in order to more accurately register a determined position of an object as taught by Michelsen.

Examiner again notes that Applicant's claims directed to statements of intended use in a device claim (i.e. what each assembly registers) are given little patentable weight since they do not impose any further structural limitations.

### ***Response to Arguments***

8. Examiner notes that Applicant's amended claims are sufficient to overcome all previous rejections directed to non-statutory subject matter. Accordingly, the rejection of claims 35-52 under 35 U.S.C. 101 has been withdrawn.

9. The specification amendments as submitted by Applicant are directed to the incorrect replacement paragraphs. Amended paragraphs 0144, 0150, and 0171 should instead replace paragraphs 0150, 0156, and 0177, respectively.

10. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection. The new rejection as previously described notes Creekmore's bracket holder assembly is adjustable and is adapted to hold a bracket in a suspended position at least partially offset from the model teeth.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

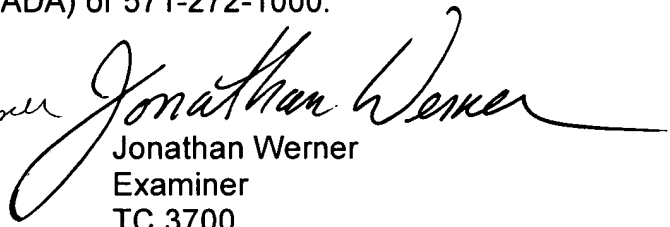
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Werner whose telephone number is (571) 272-2767. The examiner can normally be reached on Monday-Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached on (571) 272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
MELBA N. BUMGARNER  
PRIMARY EXAMINER

  
Jonathan Werner  
Examiner  
TC 3700

10/10/06